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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,079

06/25/2003

Leo Zhaoqing Liu

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03/26/2008

DANN, DORFMAN, HERRELL & SKILLMAN
1601 MARKET STREET
SUITE 2400
PHILADELPHIA, PA 19103-2307

EXAMINER

WHITE, EVERETT NMN

ART UNIT

PAPER NUMBER

1623

MAIL DATE

DELIVERY MODE

03/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/607,079	Applicant(s) LIU ET AL.	
	Examiner EVERETT WHITE	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/9/07 & 3/20/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed November 8, 2007 has been received, entered and carefully considered. The amendment affects the instant application accordingly:
 - (A) Comments regarding Office Action have been provided drawn to:
 - (I) 102(b) rejections, which has been maintained for the reasons of record;
 - (IV) 103(a) rejection, which has been maintained for the reasons of record.
2. Claims 21-37 are pending in the case.
3. The text of those sections of Title 35, U. S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 29-34 stand rejected under 35 U.S.C. 102(b) as being anticipated by Garnett et al (US Patent No. 3,522,158, already of record) for the reasons set forth on page 3 of the Office Action mailed February 23, 2005.
5. Applicant's arguments filed November 8, 2007 have been fully considered but they are not persuasive. Applicants argue against the rejection on the ground that the grafted polymer of the Garnett et al patent has a molecular weight greater than the ungrafted cellulose (i.e., polysaccharide), which Applicants explains renders a rejection of the claims as being anticipated by the Garnett et al patent untenable and should be withdrawn. This argument is not persuasive since the instant claims do not recite a specific molecular weight of the final grafted polymer that can be compared to the grafted polymers of the Garnett et al patent. The final grafted polymer of the Garnett et al patent having a molecular weight that is the same as the molecular weight of grafted polymer of the instant claims, despite the fact that the molecular weight of the grafted polymer of the instant claims is lower than the molecular weight of the ungrafted polymer, still falls under the code of 35 U.S.C 102, as being anticipated by the grafted polymers of the Garnett et al patent. Applicants claims are drawn to products of grafted polymers, not ungrafted polymers or the preparation process. Consideration of the fact that the products were originally ungrafted forces the Examiner to give consideration to

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the process by which the grafted polymers were produced, which is improper. Process limitations cannot impart patentability to a product that is not patentably distinguished over the prior art. *In re Thorpe et al.* (CAFC 1985), *supra*; *In re Dike* (CCPA 1968) 394 F2d 584, 157 USPQ 581; *Tri-Wall Containers, Inc. v. United States et al.* (Ct Cls 1969) 408 F2d 748, 161 USPQ 116; *In re Brown et al.* (CCPA 1972) 450 F2d 531, 173 USPQ 685; *Ex parte Edwards et al.* (BPAI 1986) 231 USPQ 981. Accordingly, the rejection of Claims 29-34 under 35 U.S.C. 102(b) as being anticipated by Garnett et al patent is maintained for the reasons of record.

6. Claims 29, 35 and 36 stand rejected under 35 U.S.C. 102(b) as being anticipated by Restaino et al (US Patent No. 3,461,052, already of record) for the reasons disclosed on pages 3 and 4 of the Office Action mailed February 23, 2005.

7. Applicant's arguments filed November 8, 2007 have been fully considered but they are not persuasive. Applicants argue against the rejection of the claims on the ground that there is no disclosure in the Restaino et al patent that the products are dispersible in water. This argument is not persuasive since some of the specific polysaccharides that are used in the preparation of grafted polymers recited in instant Claims 35 and 36 are also disclosed in the Restaino et al patent for use in the preparation of grafted polymers or copolymers thereof. This indicates that the grafted polymers of the Restaino et al patent are identical to some of the grafted polymers recited in the instant claims. Applicants are reminded that Products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada* 15 USPQ 2d 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01. Hence, the grafted polymers of the instant claims that are dispersible in water and identical to the grafted polymers of the Restaino et al patent indicates that these grafted polymers of the Restaino et al patent are also dispersible in water. Accordingly, the rejection of Claims 29, 35 and 36 under 35 U.S.C. 102(b) as being anticipated by Restaino et al patent is maintained for the reasons of record.

8. Claims 29 and 37 stand rejected under 35 U.S.C. 102(b) as being anticipated by Chuang et al (US Patent No. 4,831,097, already of record) for the reasons disclosed on pages 3 and 4 of the Office Action mailed February 23, 2005.

9. Applicant's arguments filed November 8, 2007 have been fully considered but they are not persuasive. Applicants argue that the rejection on the ground that the grafted polymers of the Chuang et al patent are of higher molecular weight compared to the ungrafted polymers thereof. Again, the process by which the grafted polymers of the Chuang et al patent is prepared does not have a bearing on the grafted polymers of the instant claims when the grafted polymers of the Chuang et al patent and recited in the instant claims are identical (including having the same molecular weight). No specific molecular weight of the grafted polymers of the instant claims is recited. Accordingly, the rejection of Claims 29 and 37 under 35 U.S.C. 102(b) as being anticipated by Chuang et al patent is maintained for the reasons of record.

Claim Rejections - 35 USC § 103

10. Claims 21-28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Restaino et al (US Patent No. 3,461,052) in view of Jost et al (US Patent No. 5,223,171) for the reasons disclosed on pages 6 and 7 of the Office Action dated April 17, 2006.

11. Applicant's arguments filed November 8, 2007 have been fully considered but they are not persuasive. Applicants argue against the rejection on the ground that one combining the teaching of the Jost et al patent with the teaching of the Restaino et al patent would be led by Jost et al to use radiation to produce a product that is biodegradable, i.e., degraded, and not a product that is depolymerized. This argument is not persuasive since the term "biodegradable" used in the Jost patent is not a description of a process step. Biodegradable is only a description of the final product, which indicates that the product is not harmful to the environment. The Jost et al patent is basically cited to show that polysaccharides comprising grafted unsaturated monomers of molecular weight that is less than 700,000 Daltons are well known in the art. It is lightly that the grafted polysaccharides of the instant claims are also

biodegradable, particular those grafted polysaccharides disclosed in the instant specification that are useful in food applications and liquid feed supplements (see page 5, lines 8 and 10 of the instant specification). Accordingly, the rejection of Claims 21-28 under 35 U.S.C. 103(a) as being unpatentable over the Restaino et al patent in view of Jost et al patent is maintained for the reasons of record.

Information Disclosure Statement

12. The information disclosure statement filed October 9, 2007 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Summary

13. All the pending claims are rejected.

Examiner's Telephone Number, Fax Number, and Other Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Everett White/

Examiner

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/Shaojia Anna Jiang, Ph.D./

Supervisory Patent Examiner, Art Unit 1623